

**MODEL** AM-2800

**AKAT**



# I. TECHNICAL DATA

## POWER AMPLIFIER SECTION

|                             |           |                                                                                                                      |
|-----------------------------|-----------|----------------------------------------------------------------------------------------------------------------------|
| CONTINUOUS POWER OUTPUT     |           | 80 watts per channel, minimum RMS, at 8 ohms from 20 to 20,000 Hz with no more than 0.08% total harmonic distortion. |
| POWER BANDWIDTH (IHF)       |           | 7 Hz to 40 kHz/8 ohms (Total Harmonic Distortion: 0.08%)                                                             |
| SIGNAL TO NOISE RATIO (IHF) | PHONO     | Better than 75 dB                                                                                                    |
|                             | AUX       | Better than 95 dB                                                                                                    |
| RESIDUAL NOISE              |           | Less than 0.5 mV at 8 ohms                                                                                           |
| CHANNEL SEPARATION (IHF)    | PHONO     | Better than 55 dB at 1,000 Hz                                                                                        |
| DAMPING FACTOR              |           | More than 60 (1 kHz, 8 ohms)                                                                                         |
| OUTPUT                      | SPEAKERS  | A, B (4 to 16 ohms) / A + B (8 to 16 ohms)                                                                           |
|                             | HEADPHONE | 4 to 16 ohms                                                                                                         |
| POWER INDICATOR METERS      |           | (2) 3/100W switchable                                                                                                |

## PREAMPLIFIER SECTION

|                             |                           |                                                                           |
|-----------------------------|---------------------------|---------------------------------------------------------------------------|
| INPUT SENSITIVITY/IMPEDANCE | PHONO                     | Phono 2: 3 mV/33, 47 or 100 k ohms<br>Phono 1: 3 mV/50 k ohms             |
|                             | AUX                       | 150 mV/100 k ohms                                                         |
|                             | TUNER                     | 150 mV/100 k ohms                                                         |
|                             | TAPE MONITOR              | PIN: 150 mV/100 k ohms                                                    |
|                             |                           | DIN: 150 mV/100 k ohms                                                    |
| OUTPUT LEVEL/IMPEDANCE      | TAPE REC                  | PIN: 150 mV/100 k ohms<br>DIN: 30 mV/180 k ohms                           |
| FREQUENCY RESPONSE          | PHONO (RIAA EQUALIZATION) | 30 Hz to 15 kHz +0.5 dB, -0.5 dB                                          |
|                             | TUNER, AUX, TAPE MONITOR  | 7 Hz to 70 kHz +0 dB, -1 dB                                               |
| TONE CONTROL                | BASS                      | ±9 dB at 100 Hz                                                           |
|                             | MIDRANGE                  | ±6 dB at 1 kHz                                                            |
|                             | TREBLE                    | ±9 dB at 10 kHz                                                           |
| LOUDNESS CONTROL            |                           | +10 dB at 100 Hz, +6 dB at 10 kHz (Volume control set at -30 dB position) |
| FILTER                      | HIGH                      | -5 dB at 10 kHz (7 kHz position),<br>-3 dB at 10 kHz (10 kHz position)    |
|                             | LOW                       | -2 dB at 50 Hz (30 Hz position),<br>-6 dB at 50 Hz (60 Hz position)       |

## MISCELLANEOUS

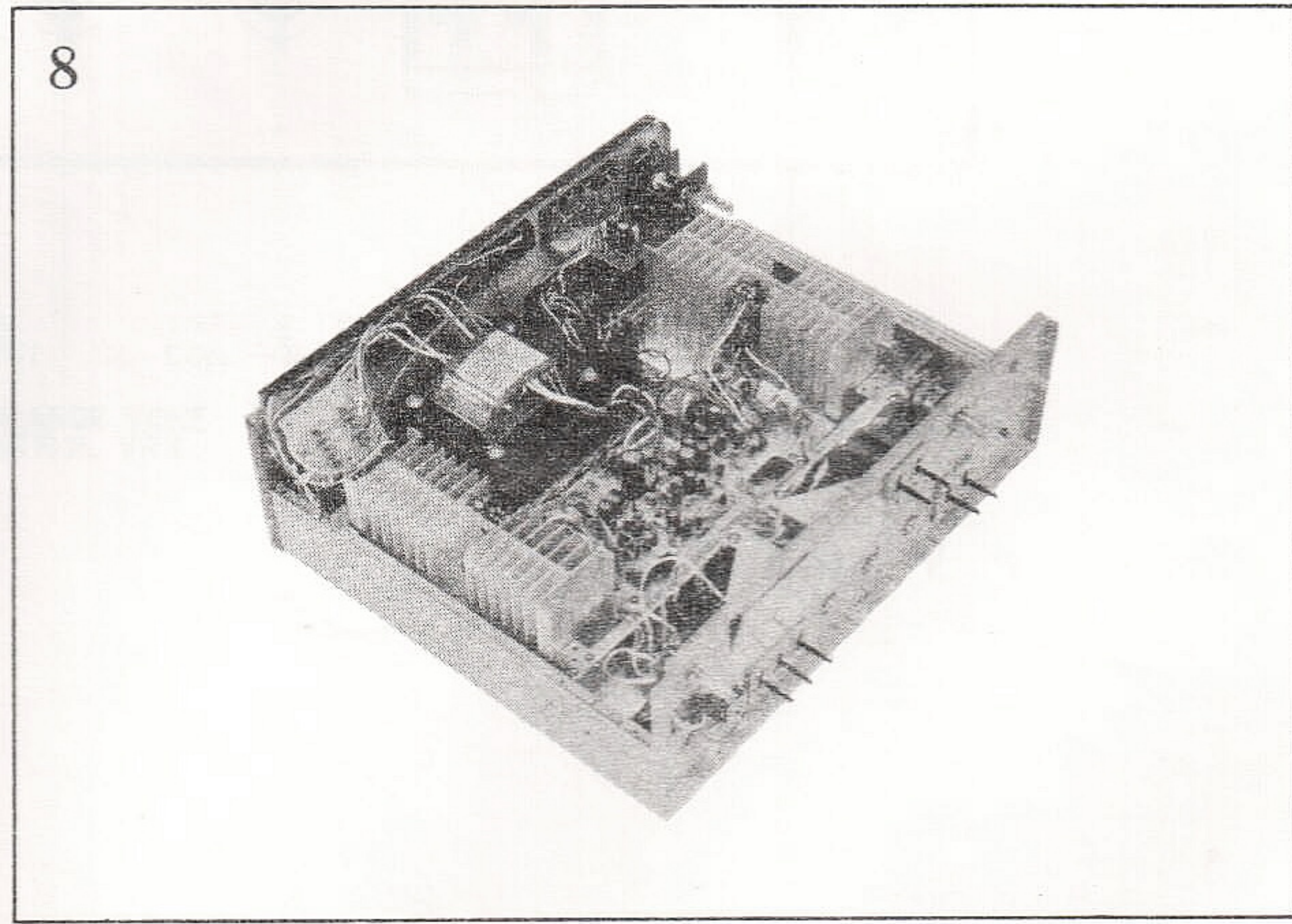
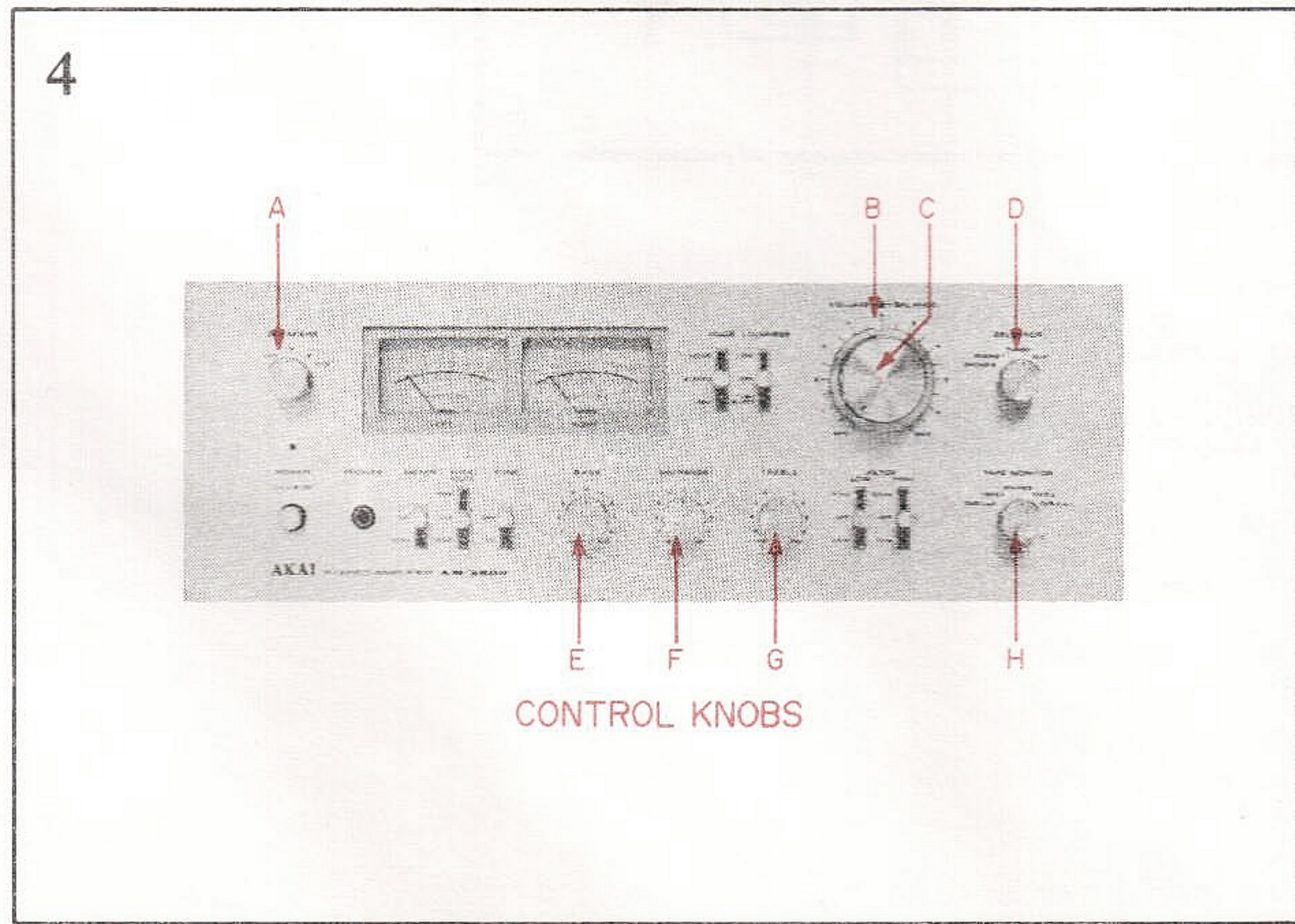
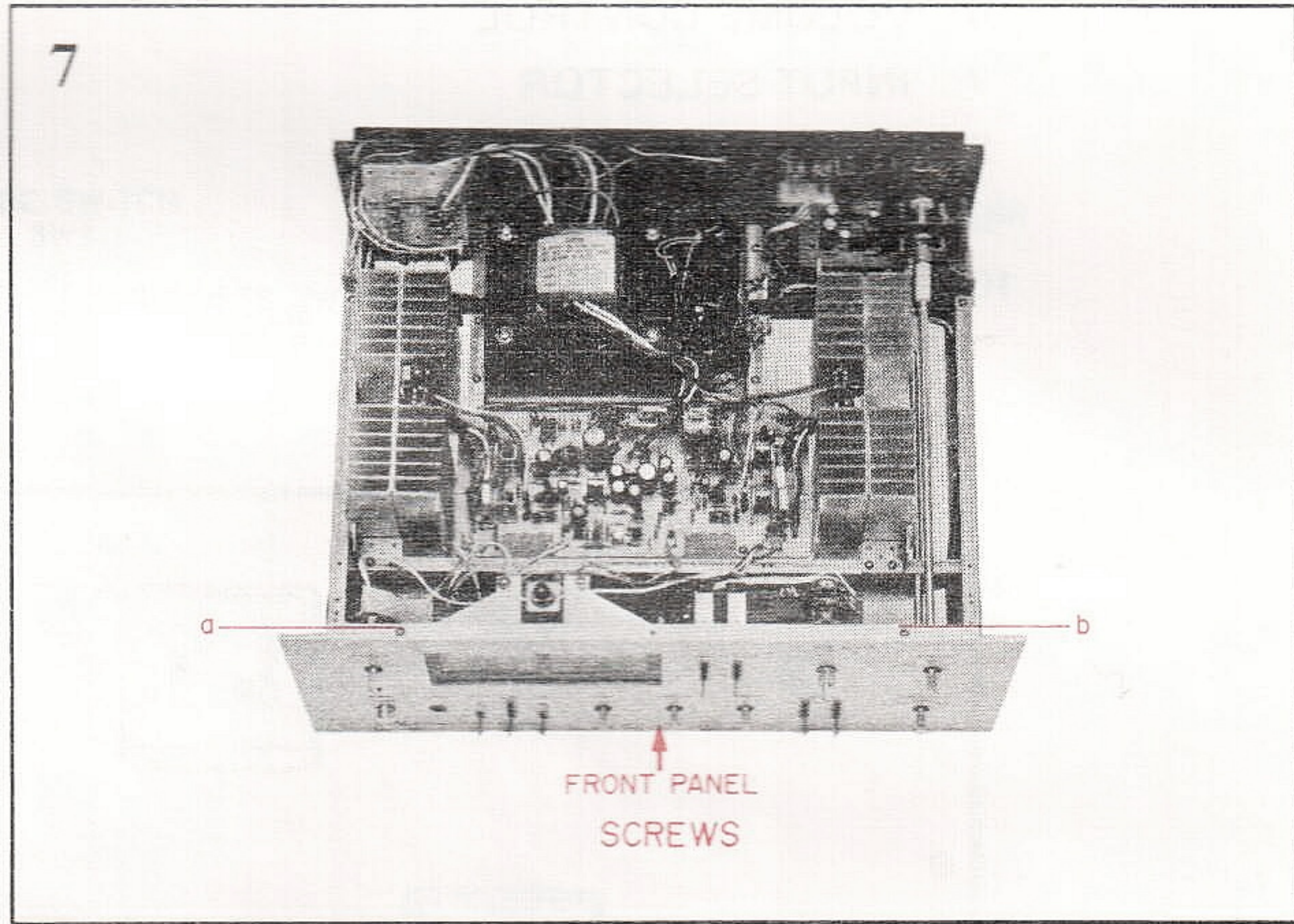
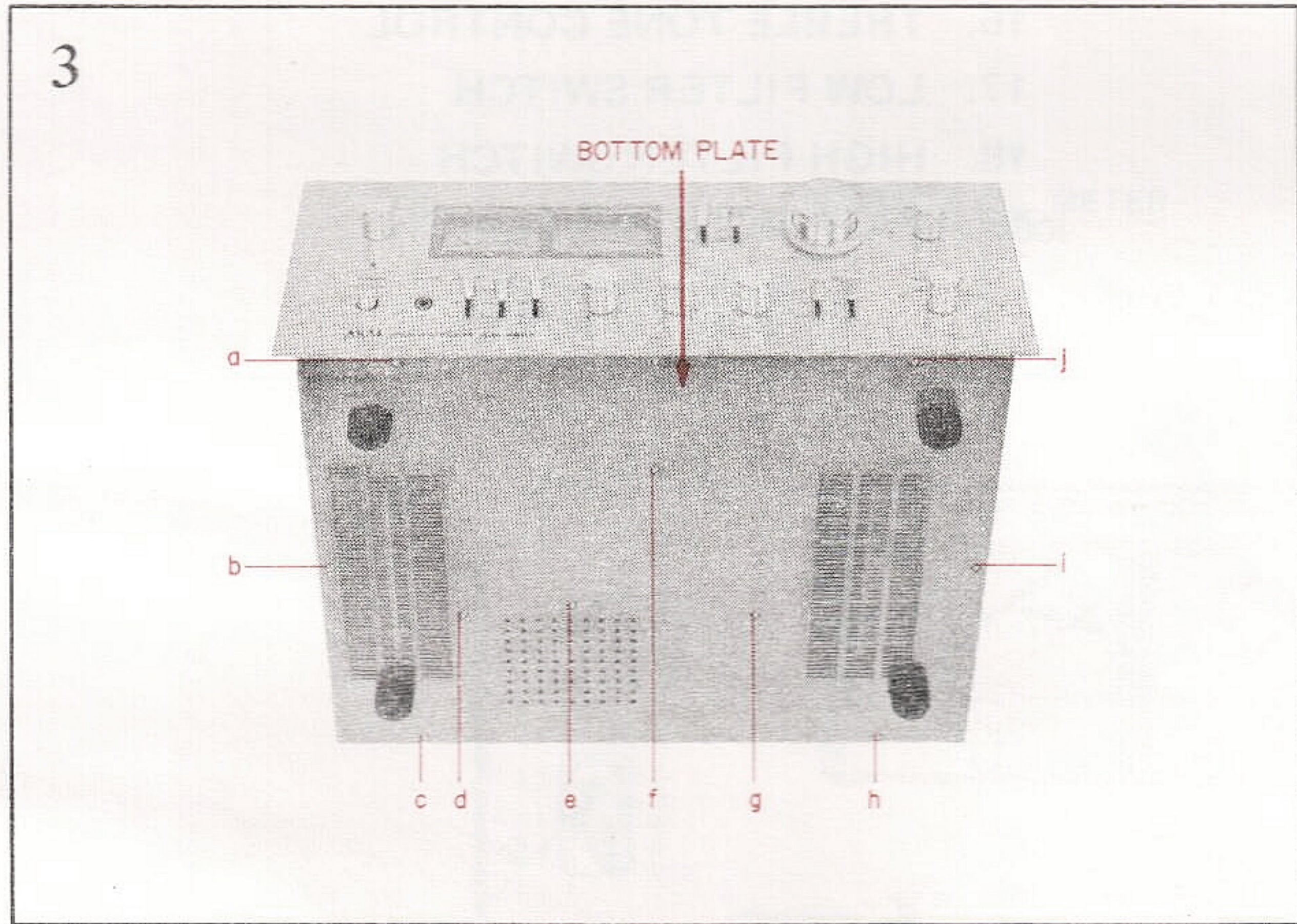
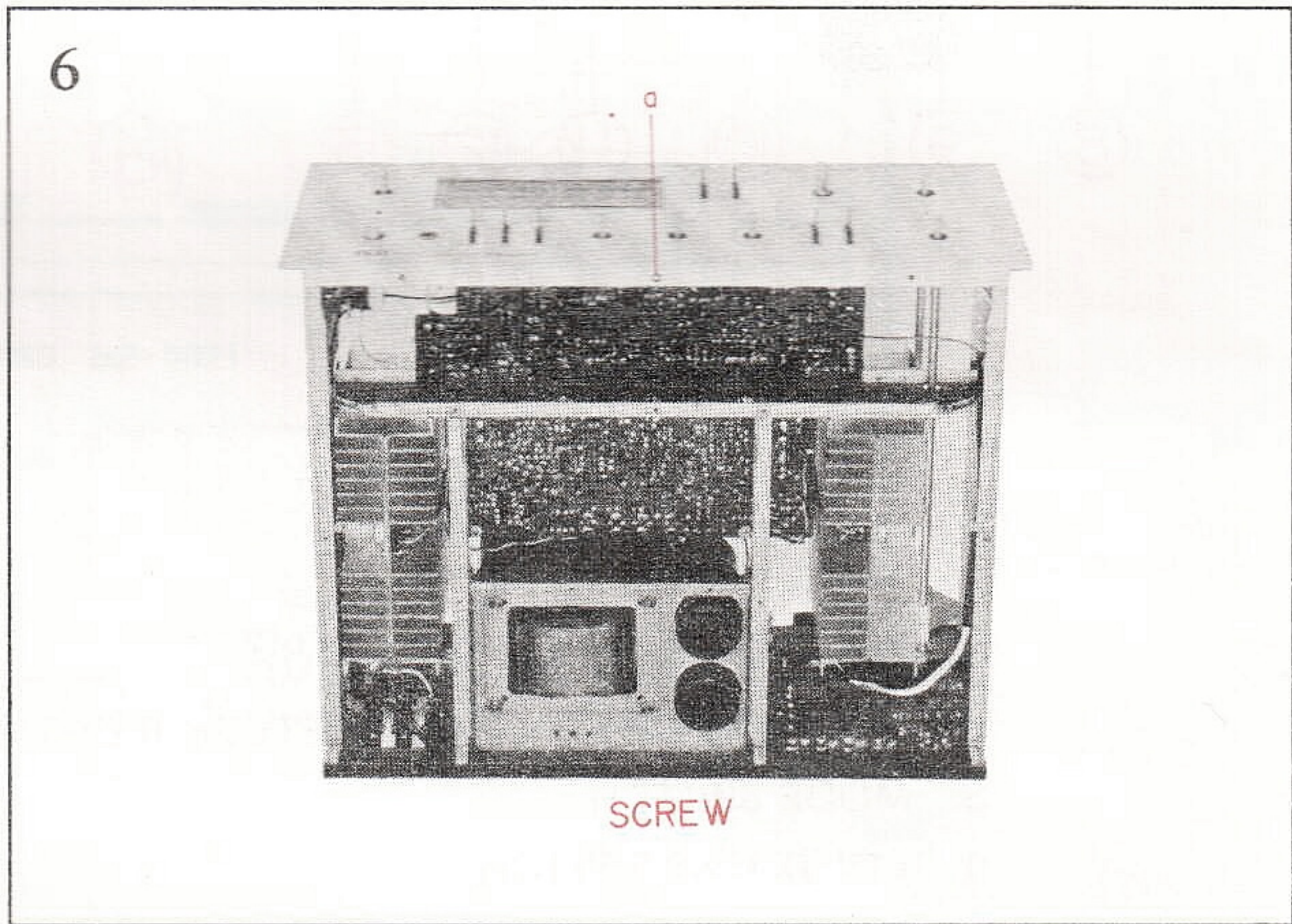
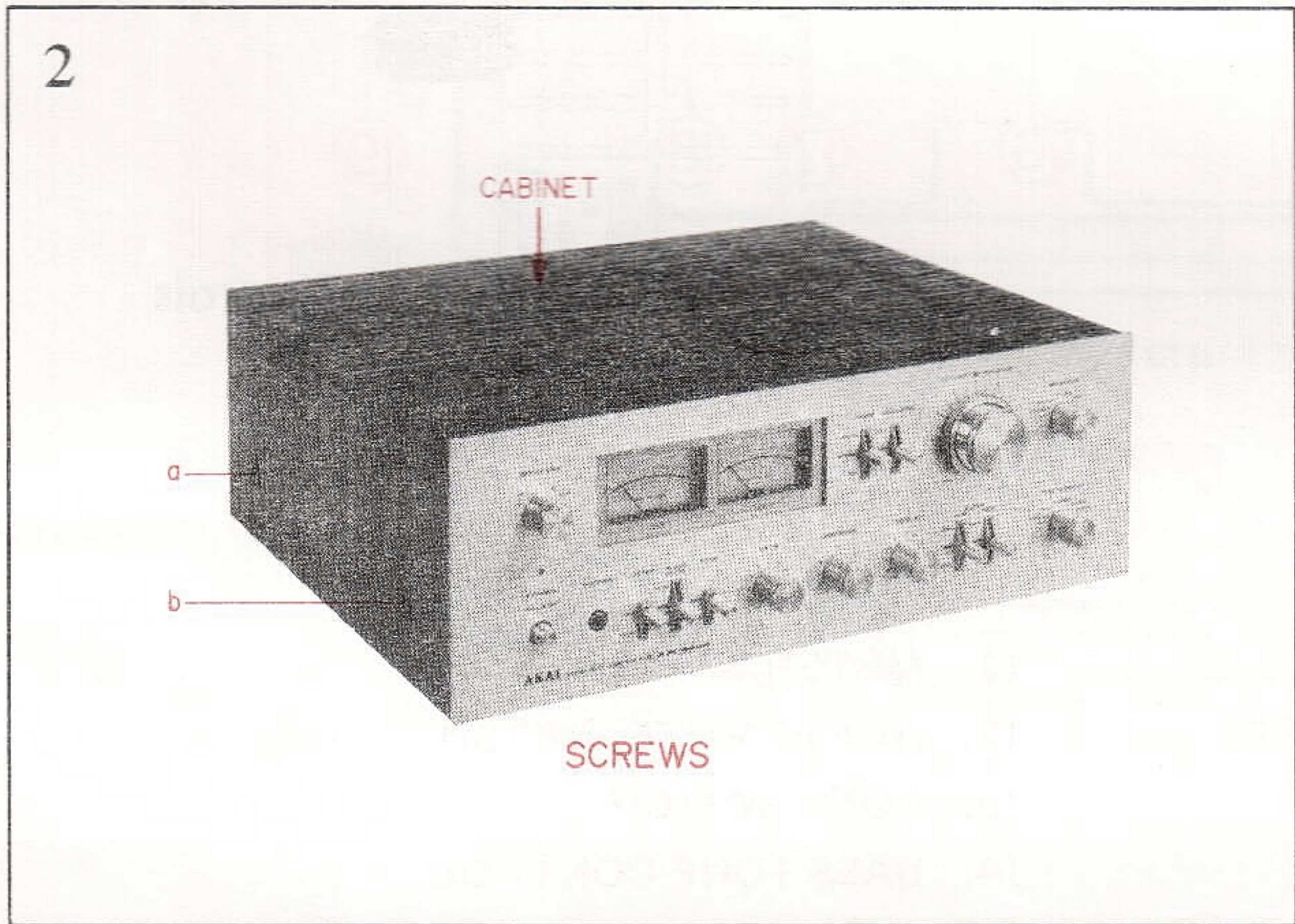
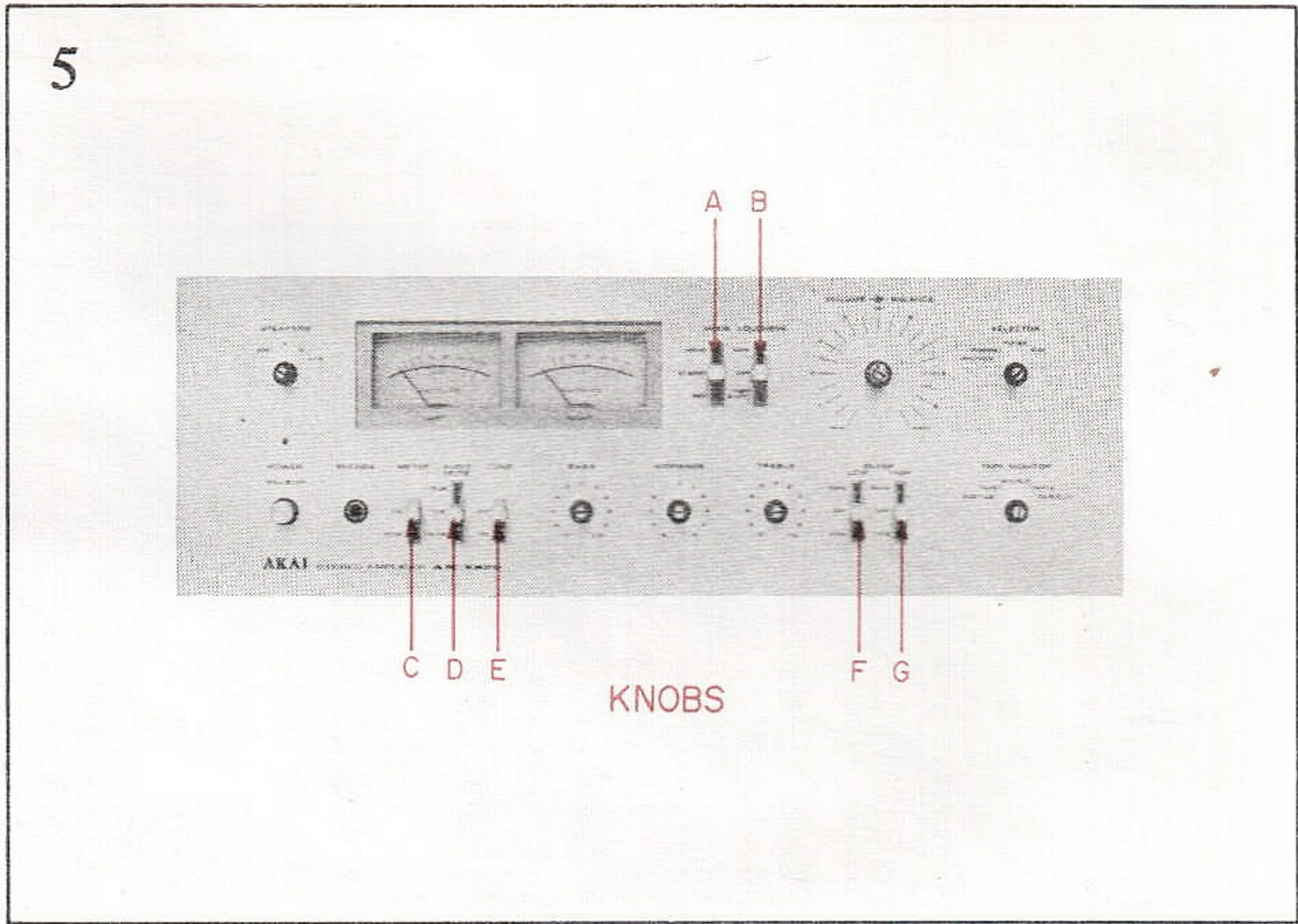
|                    |                                                         |
|--------------------|---------------------------------------------------------|
| SEMI CONDUCTORS    | Transistors: 37, Diodes: 17                             |
| POWER REQUIREMENTS | CSA, UL and LA models: 120V, 60 Hz                      |
|                    | CEE models: 220V, 50 Hz                                 |
|                    | Other models: 110/220/240V Switchable 50/60 Hz          |
| DIMENSIONS         | 440(W) x 165(H) x 396(D) mm, (17.3 x 6.5 x 16.6 inches) |
| WEIGHT             | 12.9 kg (28.9 lbs)                                      |

\* For improvement purposes, specifications and design are subject to change without notice.



# II. DISMANTLING OF UNIT

In case of trouble, etc. necessitating disassembly, please disassemble in the order shown in photographs. Reassemble in reverse order.





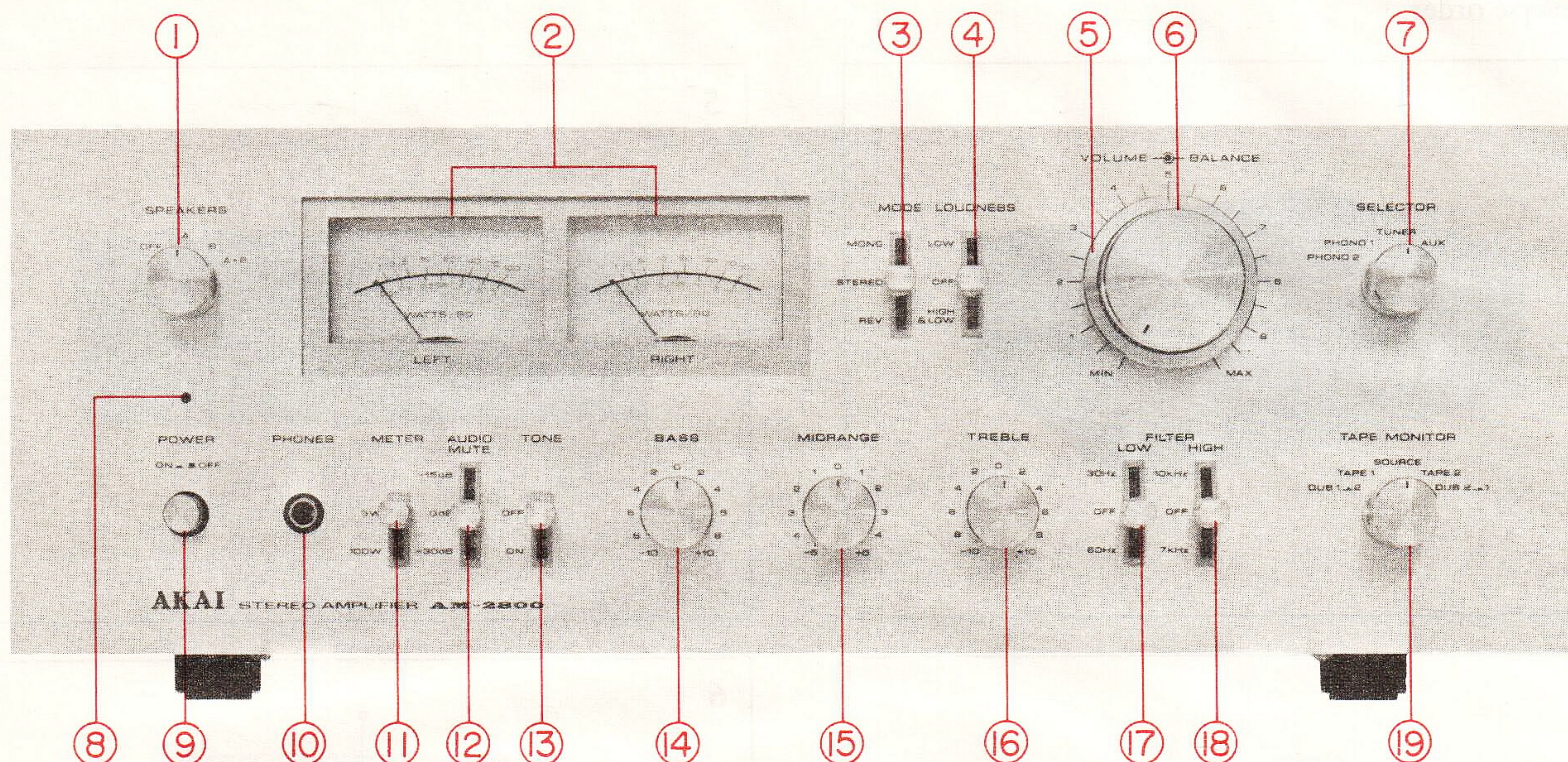


Fig. 1 Controls

- |                                             |                           |
|---------------------------------------------|---------------------------|
| 1. SPEAKER SYSTEM SELECTOR                  | 11. METER SWITCH          |
| 2. OUTPUT POWER LEVEL METERS (LEFT & RIGHT) | 12. AUDIO MUTE SWITCH     |
| 3. MODE SWITCH                              | 13. TONE SWITCH           |
| 4. LOUDNESS SWITCH                          | 14. BASS TONE CONTROL     |
| 5. STEREO BALANCE CONTROL                   | 15. MIDRANGE TONE CONTROL |
| 6. VOLUME CONTROL                           | 16. TREBLE TONE CONTROL   |
| 7. INPUT SELECTOR                           | 17. LOW FILTER SWITCH     |
| 8. POWER INDICATOR LAMP                     | 18. HIGH FILTER SWITCH    |
| 9. POWER SWITCH                             | 19. TAPE MONITOR SWITCH   |
| 10. HEADPHONE JACK                          |                           |



# IV. PRINCIPAL PARTS LOCATION

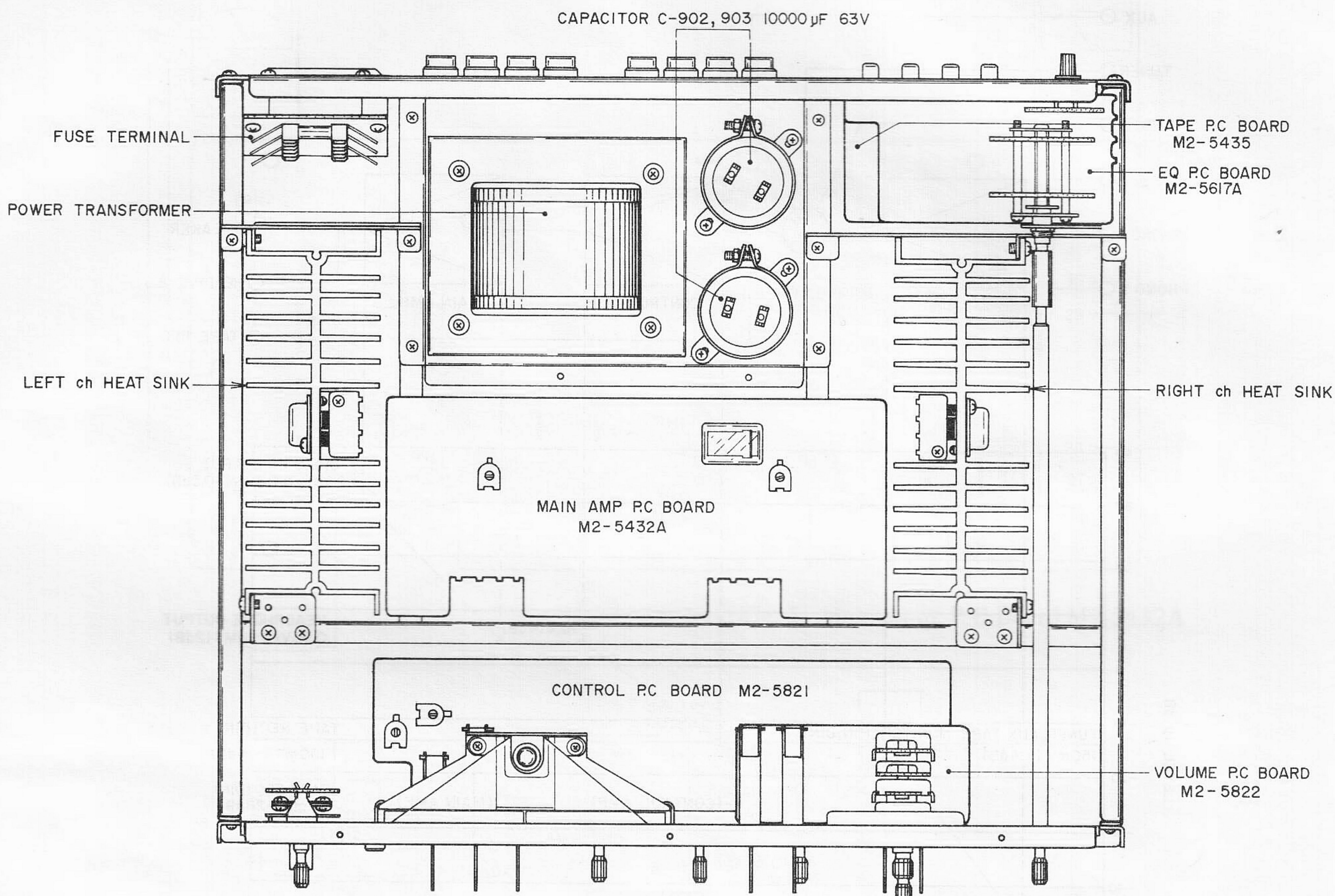


Fig. 2 Top View

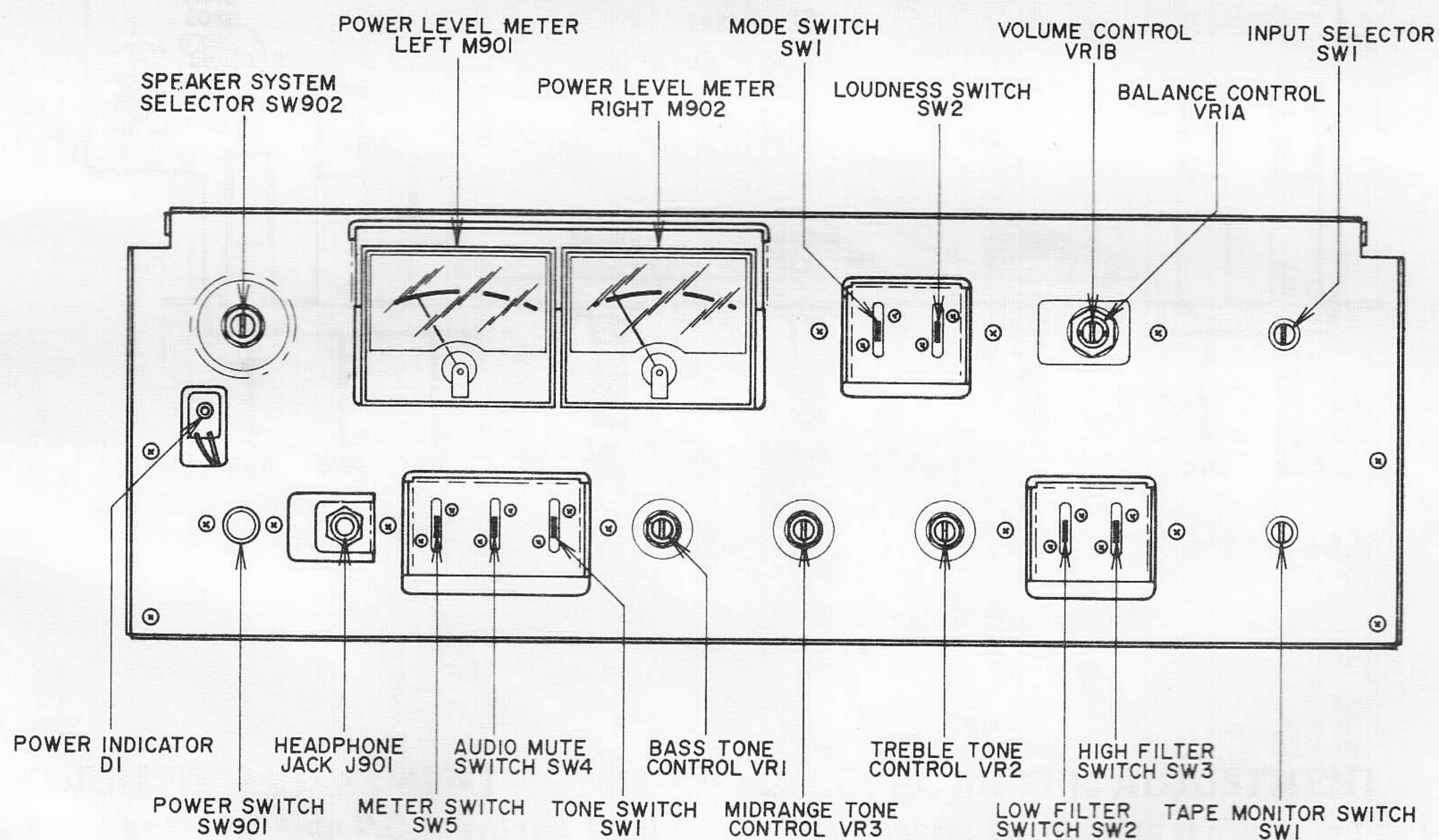


Fig. 3 Front View



# V. LEVEL DIAGRAM

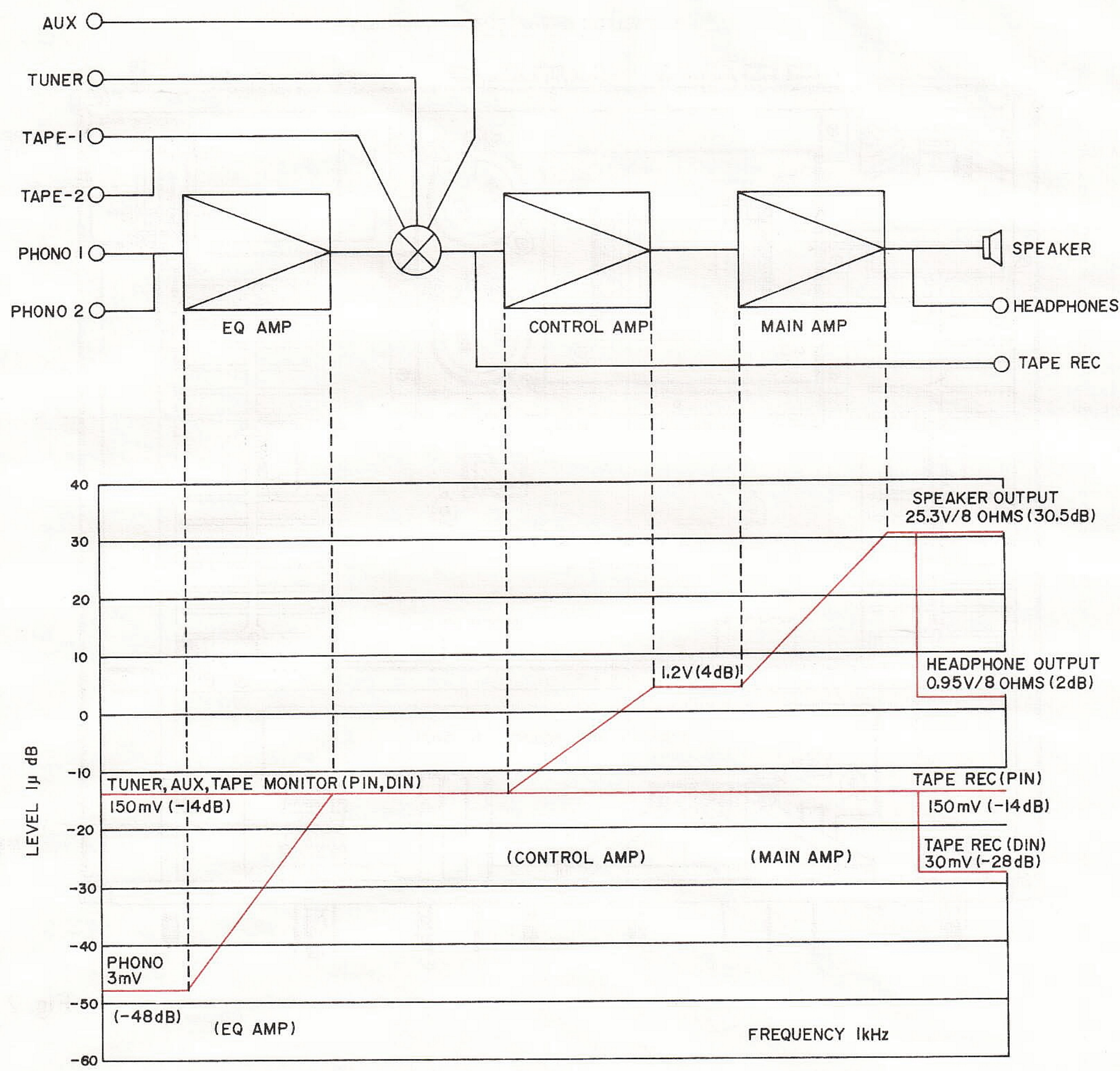


Fig. 4 Level Diagram of Model AM-2800



# VI. MAIN AMPLIFIER ADJUSTMENT

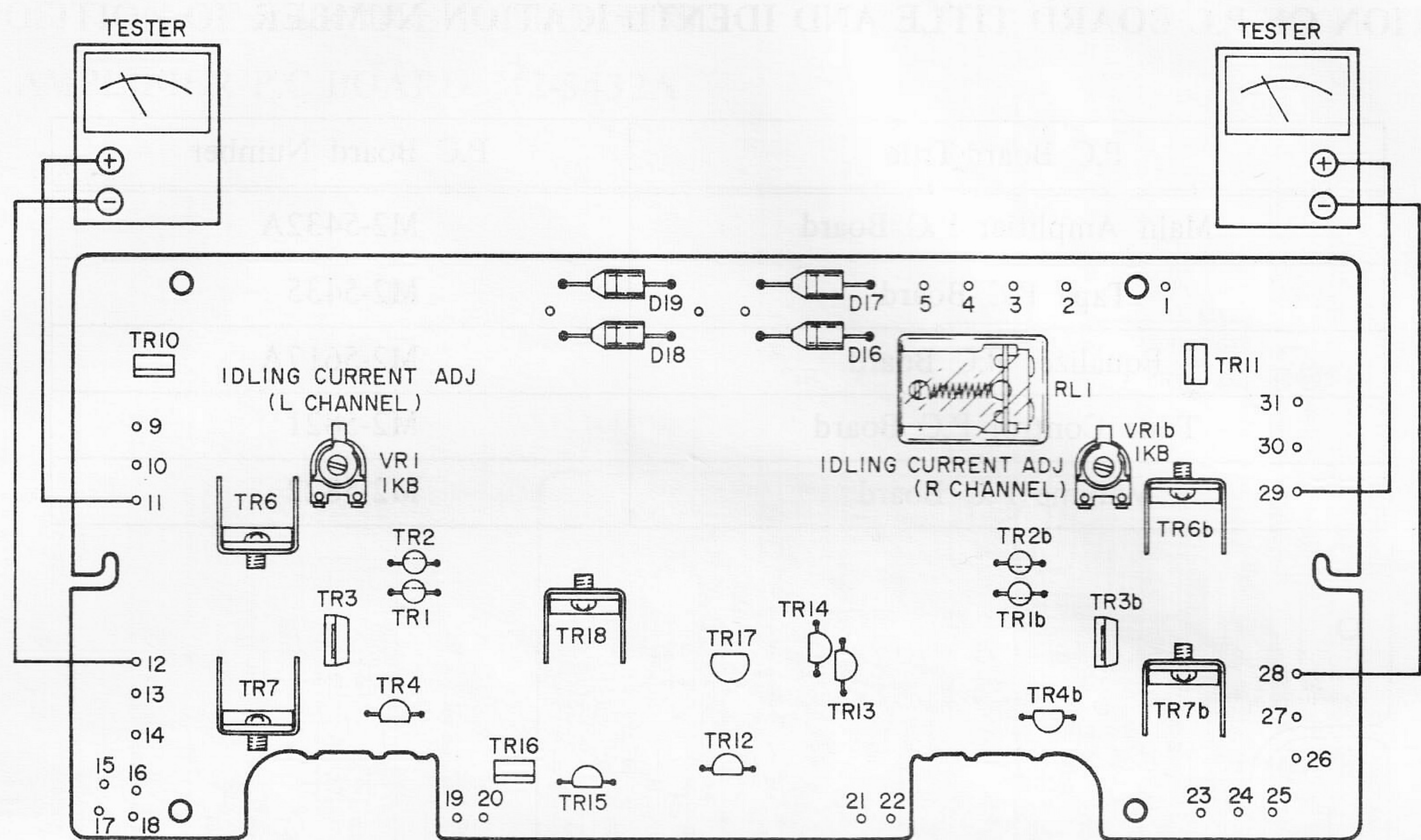


Fig. 5 Main Amp. P.C Board M2-5432A

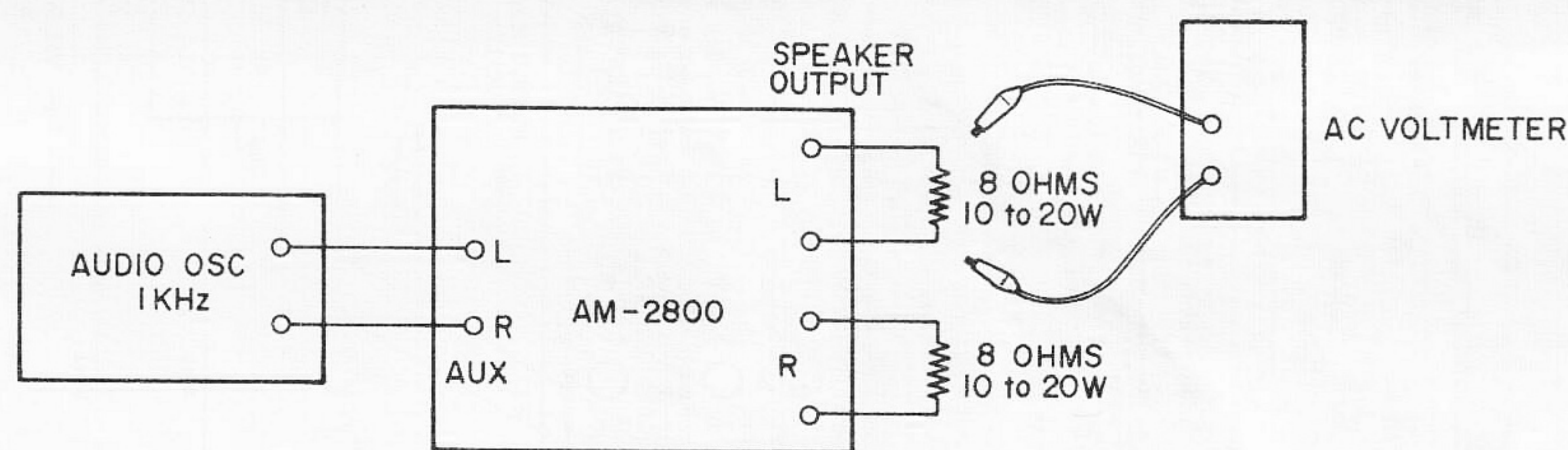


Fig. 6 Level Meter Adjustment

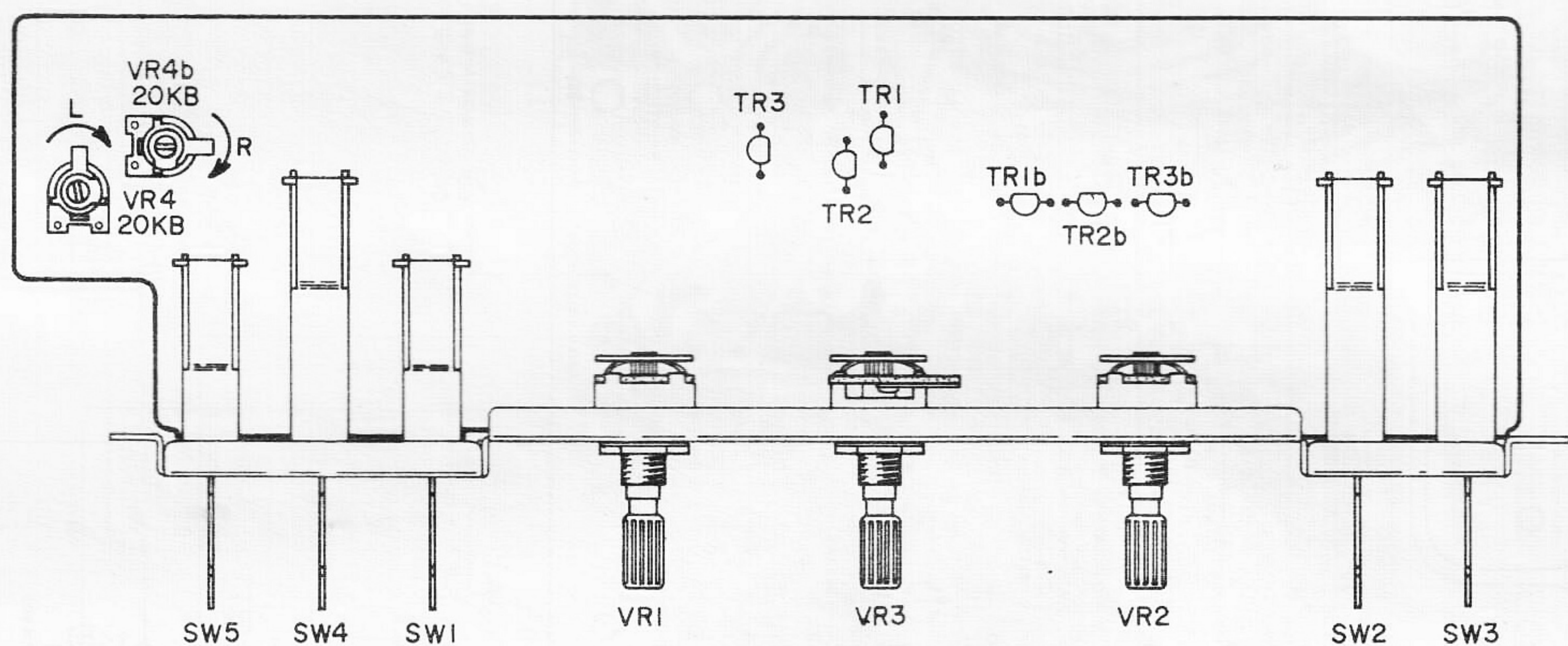


Fig. 7 Tone Control P.C Board M2-5821

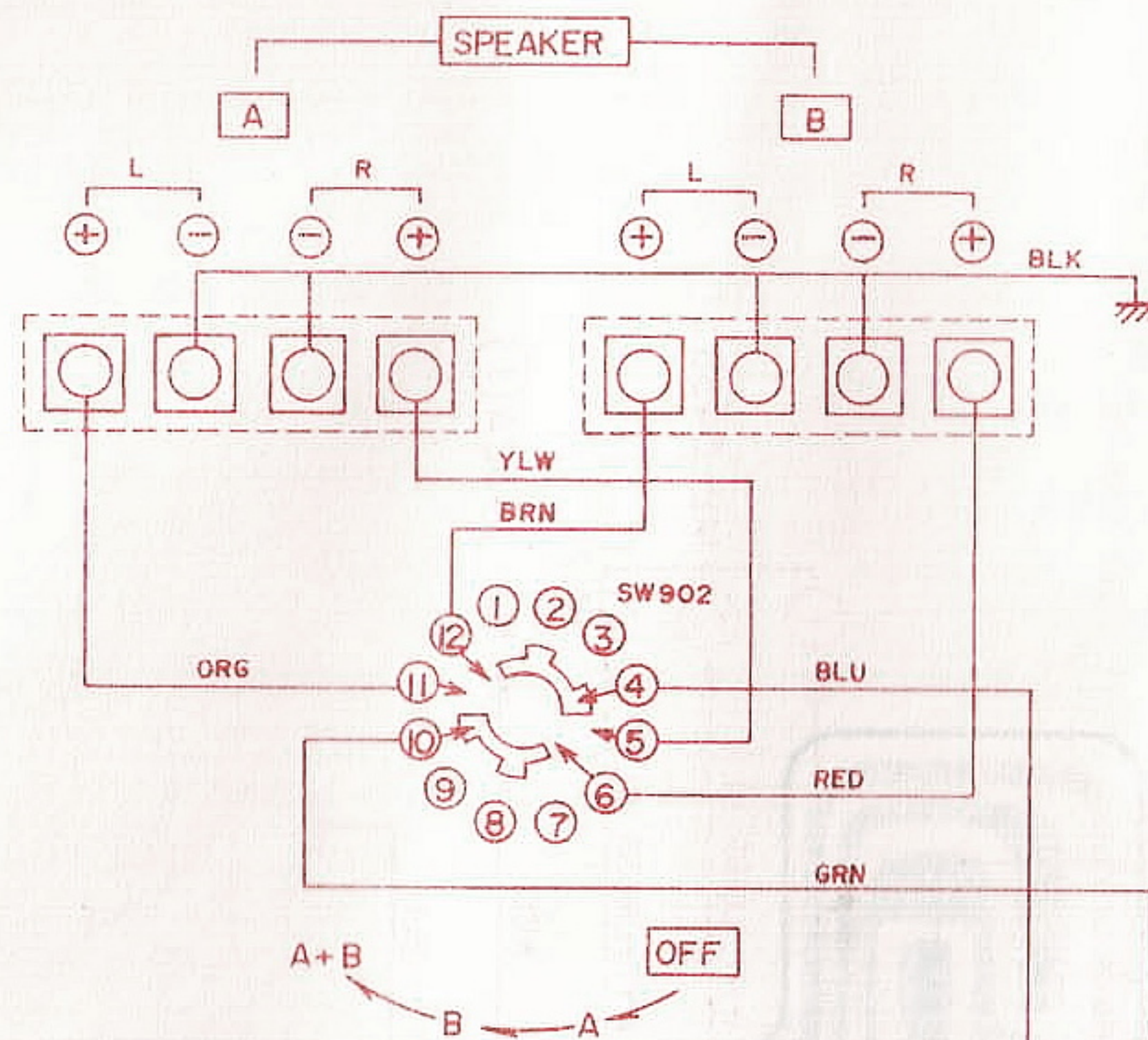
## 1. IDLING CURRENT ADJUSTMENT

Connect a tester to Power Amp P.C Board test point between Pin-11 and Pin-12, and between Pin-29 and Pin-28. Adjust semifixed resistors VR-1a, VR-1b until the voltage is 30 mV.

## 2. LEVEL METER ADJUSTMENT

- 1) Connect instruments as shown in Fig. 6.
- 2) Turn Volume Control knob on the front panel until the AC Voltmeter indicates 4.9 volts (3 watts).
- 3) Adjust VR-4, VR-4b so that level meter indicates 3 watts. (Refer to Fig. 7)





ECB  
2SC1940  
2SD571

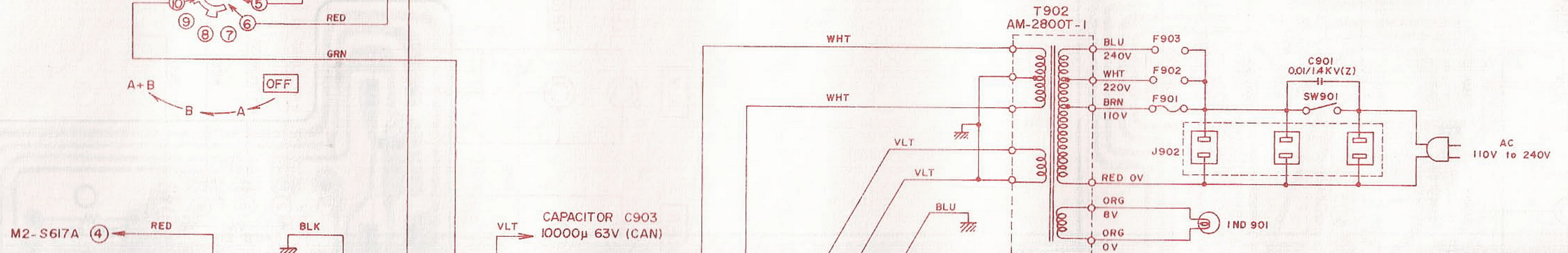
ECB  
2SB560

ECB  
2SA640-1  
2SA733  
2SC945L  
2SC536

ECB  
2SC1628  
2SD313

BCE  
2SC1624  
2SA814

CBE  
2SD424  
2SB554



M2-S617A (4) RED

VLT CAPACITOR C903 10000μ 63V (CAN)

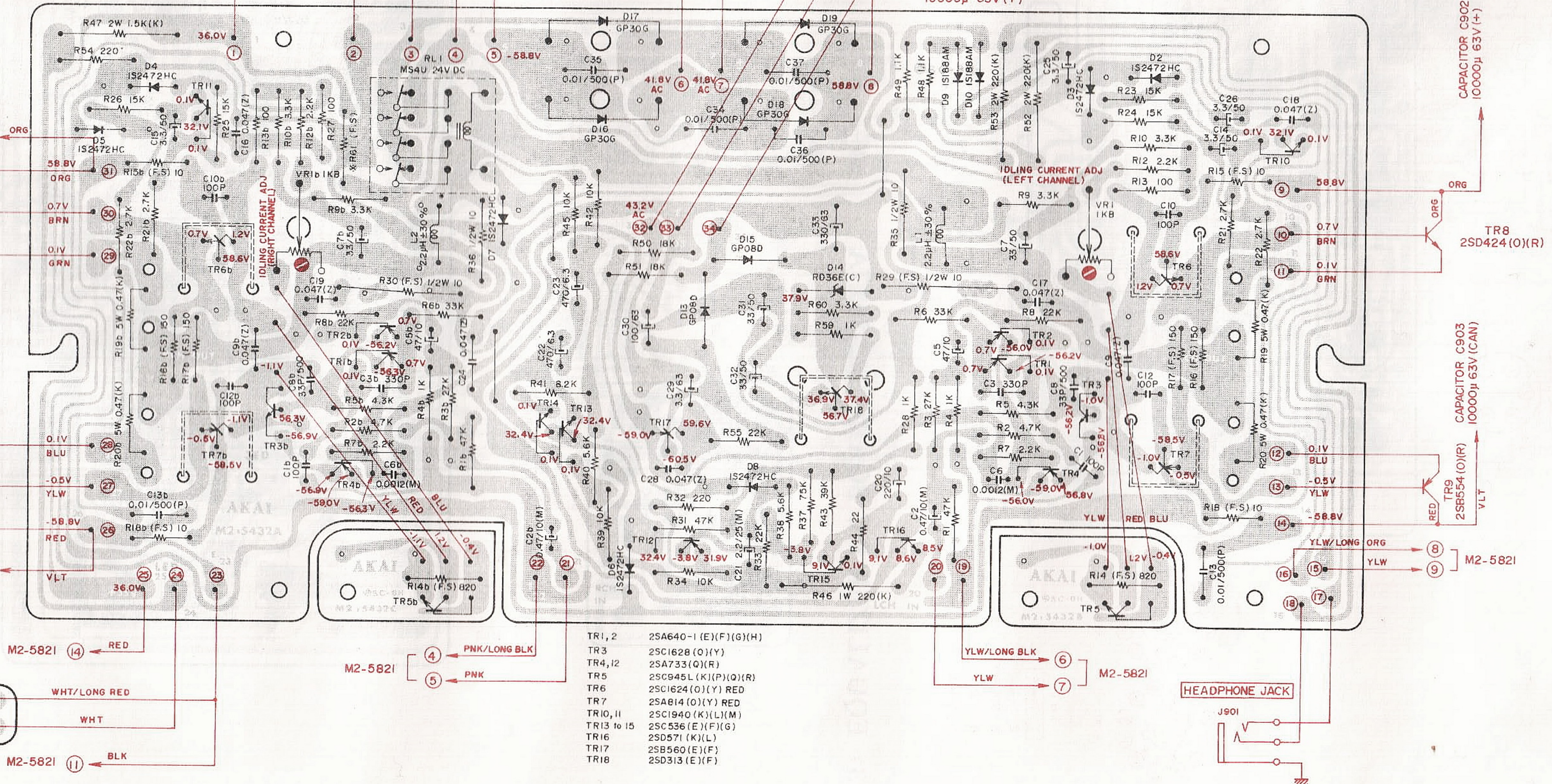
ORG CAPACITOR C902 10000μ 63V (+)

CAPACITOR C902 10000μ 63V (+)

TR8b 2SD424(O)(R)

TR9b 2SB554(O)(R)

CAPACITOR C903 10000μ 63V (CAN)



CAPACITOR C902 10000μ 63V (+)

TR8 2SD424(O)(R)

CAPACITOR C903 10000μ 63V (CAN)

TR9 2SB554(O)(R)

M2-5821

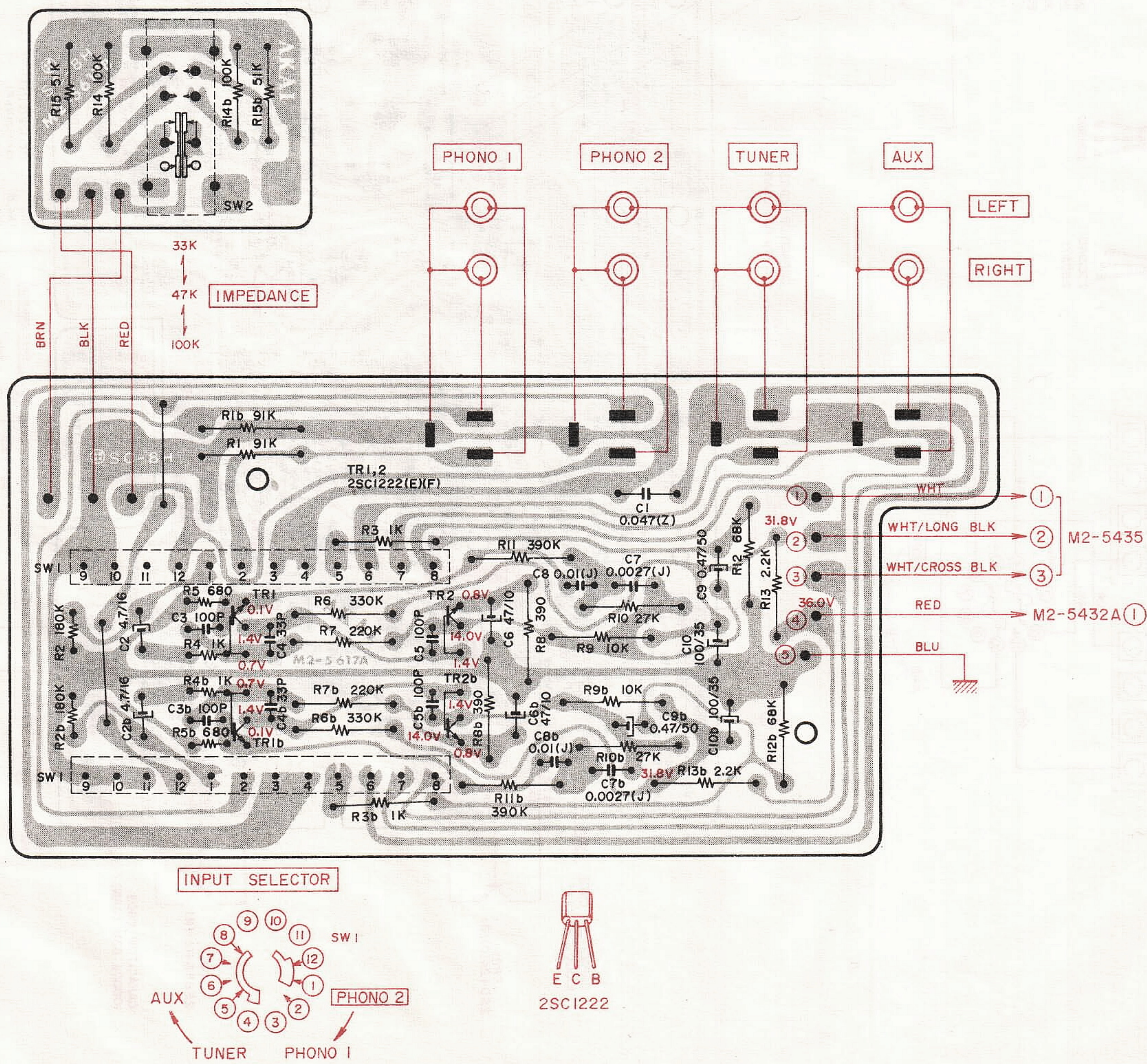
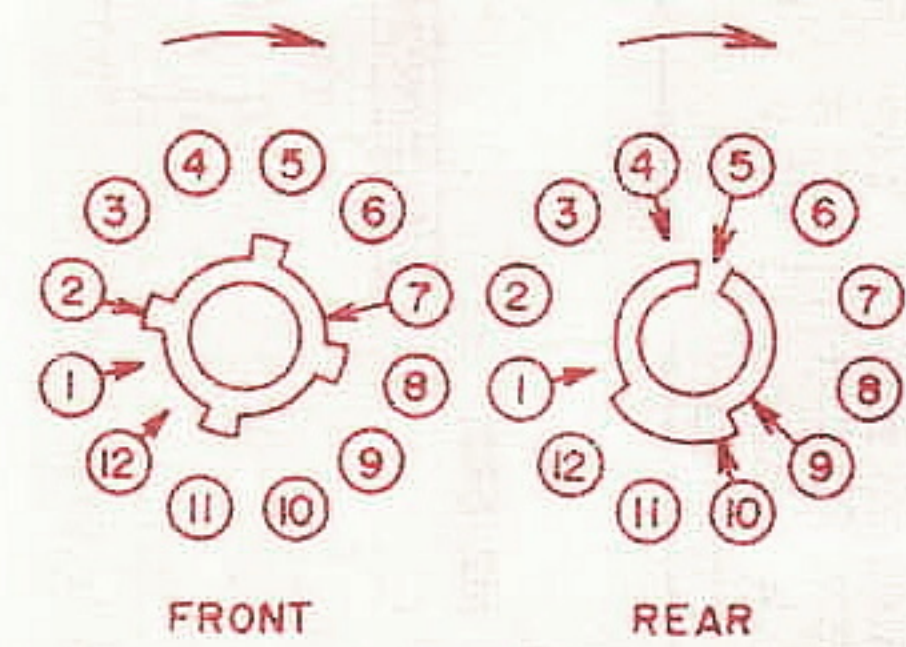
- TR1, 2 2SA640-1 (E)(F)(G)(H)
- TR3 2SC1628 (O)(Y)
- TR4, 12 2SA733 (O)(R)
- TR5 2SC945L (K)(P)(Q)(R)
- TR6 2SC1624 (O)(Y) RED
- TR7 2SA814 (O)(Y) RED
- TR10, 11 2SC1940 (K)(L)(M)
- TR13 to 15 2SC536 (E)(F)(G)
- TR16 2SD571 (K)(L)
- TR17 2SB560 (E)(F)
- TR18 2SD313 (E)(F)

YLW/LONG BLK (6)  
YLW (7) M2-5821

HEADPHONE JACK

J901











VOLUME P.C BOARD M2-5822

